

**2/2-way valves DN 8 to DN 50**  
**for neutral gaseous and liquid fluids**  
**Indirectly solenoid actuated**  
**Diaphragm valves**  
**Internal threads G 1/4 to G 2 or 1/4" NPT to 2" NPT**  
**Operating pressure 0,1 to 10/16 bar**

**Click-on®**

82 400  
82 410

**Description (standard valve)**

Solenoid valve for e.g. air, water

Switching function:	Normally closed
Flow direction:	determined
Fluid temperature:	-10 °C to max. +90 °C
Ambient temperature:	-10 °C to max. +50 °C
Mounting position:	optional, preferably solenoid vertical on top



**Material**

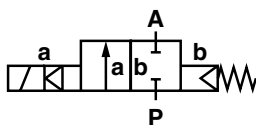
Body:	Brass
Seat seal:	NBR (Perbunan)
Internal parts:	Stainless steel, PVDF resp. brass

For contaminated fluids insertion of a strainer is recommended (see accessories).

**Features**

- High flow rate
- Damped operation
- Clear compact design
- Solenoid interchangeable without tools (Click-on®)

**Symbol**



**Ordering information**

To order, quote model number from table overleaf, e.g. 82 400 00.9101 for a G 1/4 valve with standard solenoid.

**Characteristic data**

See page 2 valve and solenoid informations

Detmolder Strasse 256  
D-32545 Bad Oeynhausen  
PO Box 10 02 52-53  
D-32502 Bad Oeynhausen  
Phone 05731 / 7 91-0  
Fax 05731 / 791-179  
<http://www.buschjost.com>  
[mail@buschjost.de](mailto:mail@buschjost.de)

**Characteristic data**

**Valves**

Part Number with DC or AC solenoid	Nominal Diameter (mm)	Port size	Valve length (mm)	Operating Pressure *		kv-Wert ** (Base m <sup>3</sup> /h)	Weight (kg)
				min	max (bar)		
82 400 00.9101 82 410 00.9101	8	G 1/4 1/4" NPT	60	0,1	16	1,90	0,47
82 401 00.9101 82 411 00.9101	10	G 3/8 3/8" NPT	60	0,1	16	3,00	0,45
82 402 00.9101 82 412 00.9101	12	G 1/2 1/2" NPT	67	0,1	16	3,80	0,50
82 403 00.9101 82 413 00.9101	20	G 3/4 3/4" NPT	80	0,1	16	6,10	0,65
82 404 00.9101 82 414 00.9101	25	G 1 1" NPT	95	0,1	16	9,50	0,95
82 405 00.9101 82 415 00.9101	32	G 1 1/4 1 1/4" NPT	132	0,1	10	23,00	2,73
82 406 00.9101 82 416 00.9101	40	G 1 1/2 1 1/2" NPT	132	0,1	10	25,00	2,53
82 407 00.9101 82 417 00.9101	50	G 2 2" NPT	160	0,1	10	41,00	3,85

\* with gaseous and liquid fluids up to 25 mm<sup>2</sup>/s (cSt)

State voltage [V] and frequency [Hz]

\*\* C<sub>v</sub>-value (US) ≈ kv-value x 1,2

**9101/9151 Solenoid**

Standard voltages

DC	AC	
	50 Hz	60 Hz
24 V	24 V	-
-	110 V	120 V
205 V	230 V	220 V

Design acc. to VDE 0580

Voltage range ±10 %

100 % duty cycle

Protection class acc. to EN 60529 IP 65 (previous DIN 40050)

Socket acc. to DIN 43 650-A Pg9 (included)

**Power Consumption**

According to VDE 0580 at coil temperature +20 °C. In operating the solenoid coil decrease the power consumption appr. 30 %.

DC	AC	
	Inrush	Holding
<b>9101</b> 8 W	15 VA	12 VA / 7 W
<b>9151</b> 18 W	45 VA	35 VA / 17 W

For technical details see catalog-register "Solenoids"

**Options (Valves)**

- XX XXX **01**.XXXX Normally open (NO)
- XX XXX **02**.XXXX Manual override
- XX XXX **03**.XXXX Seat seal FPM,  
max. fluid temperature +110 °C
- XX XXX **14**.XXXX Seat seal EPDM, for hot water,  
max. fluid temperature +110 °C;  
0,3 to 16 bar up to DN 25  
0,3 to 10 bar from DN 32
- XX XXX **50**.XXXX Latching coil; impulse time min. 30 ms;  
only for DC 6, 12 and 24 V

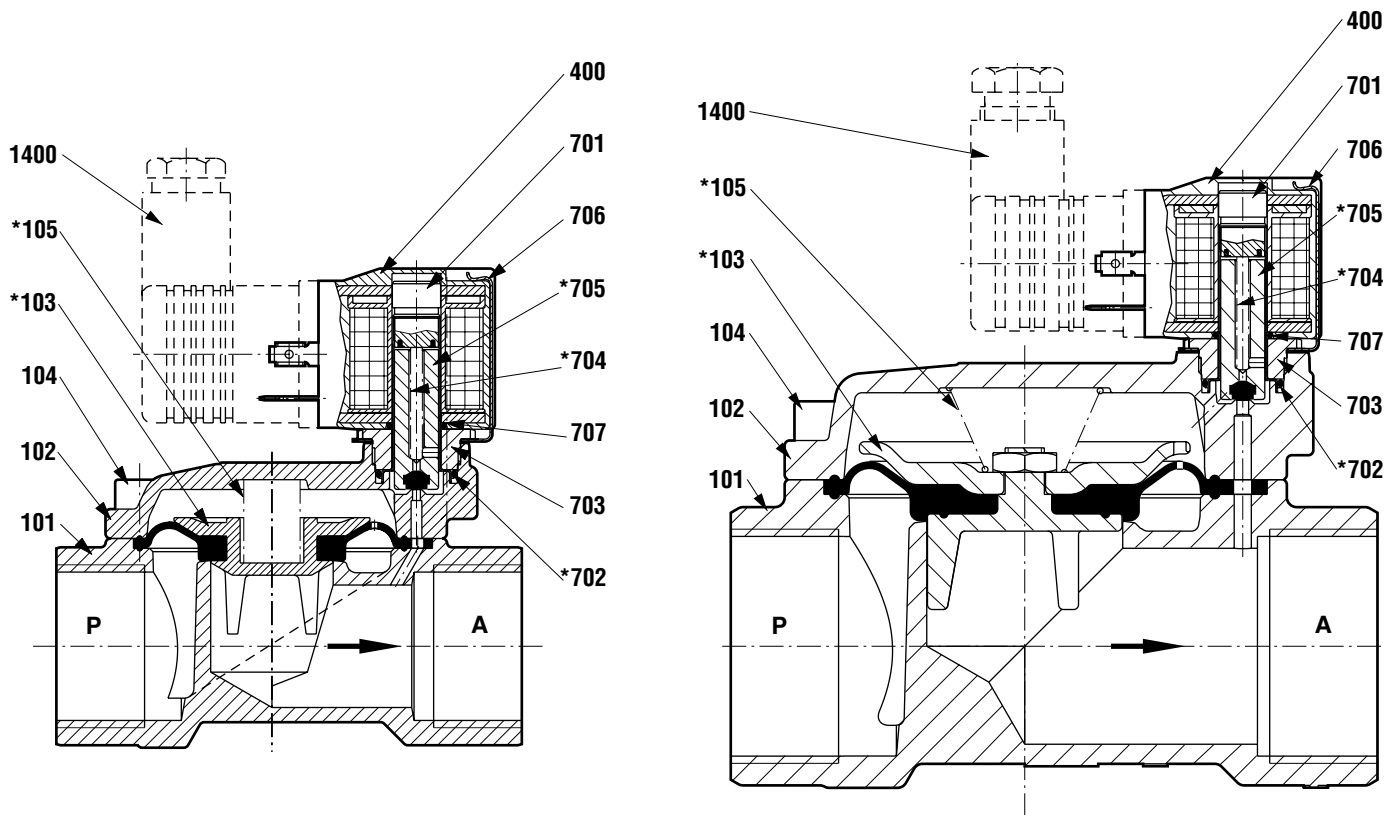
On request

Further versions

**Options (Solenoids)**

- XX XXX XX.**9130** Solenoid with CSA approval  
connector excluded
- XX XXX XX.**9131** Solenoid with CSA approval  
connector included
- XX XXX XX.**9136** Solenoid in protection class EEx m II T4  
with 3 m connection cable, for AC/DC

## Section View

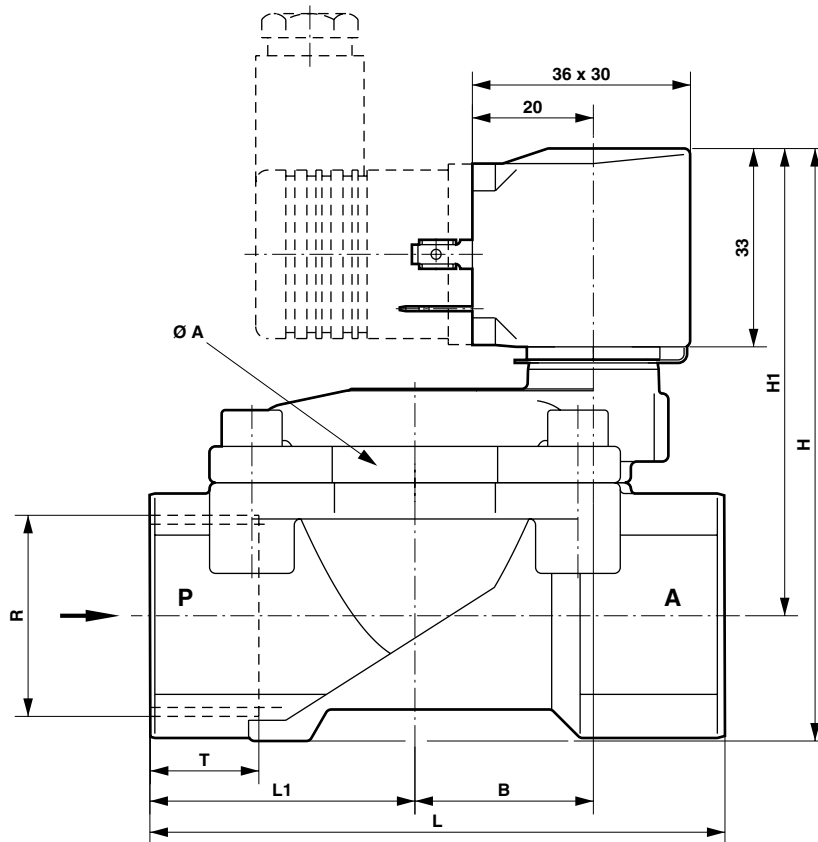


- 101 Valve body
- 102 Valve cover
- \*103 Diaphragm
- 104 Socket head cap screw
- \*105 Pressure spring
- 400 Solenoid
- 701 Core tube
- \*702 O-ring
- 703 Screw piece
- \*704 Pressure spring
- \*705 Core
- 706 Spring clip
- 707 O-ring
- 1400 Socket (included)

\* These individual parts form a complete wearing unit.  
When ordering spare parts please state Cat no and series no.

General Dimensions

Solenoid rotatable 360°  
 Socket turnable 4 x 90°  
 (Socket included)



Part Number	Ø A	B	H	H1	L	L1	R	T
82 400 00.9101	44	19,5	78,5	67,0	60	27,5	G 1/4	12,0
82 410 00.9101							1/4" NPT	10,0
82 401 00.9101	44	19,5	78,5	67,0	60	27,5	G 3/8	12,0
82 411 00.9101							3/8" NPT	10,5
82 402 00.9101	44	19,5	81,0	67,0	67	31,0	G 1/2	14,0
82 412 00.9101							1/2" NPT	13,5
82 403 00.9101	50	24,0	88,0	71,5	80	36,5	G 3/4	16,0
82 413 00.9101							3/4" NPT	14,0
82 404 00.9101	62	29,5	97,5	77,0	95	44,0	G 1	18,0
82 414 00.9101							1" NPT	17,0
82 405 00.9101	92	44,5	124,5	95,5	132	60,0	G 1 1/4	20,0
82 415 00.9101							1 1/4" NPT	17,0
82 406 00.9101	92	44,5	124,5	95,5	132	60,0	G 1 1/2	22,0
82 416 00.9101							1 1/2" NPT	17,0
82 407 00.9101	109	54,5	142,5	108,0	160	74,0	G 2	24,0
82 417 00.9101							2" NPT	17,5

**EU Manufacturer's Declaration**  
 as defined in EU Machinery Guideline 89/392/EEC, Appendix II B  
 We hereby declare that the diaphragm valves were developed and designed using the following harmonised standards:

- EN 292**     **Machine Safety**
- EN 983**     **Pneumatic Systems**
- EN 60204-1** **Electrical Equipment for Machinery**

Note  
 These diaphragm valves are intended for fitting in a machine. They must not be commissioned until it has been established that the machine as a whole conforms to the EU guideline.

Note on EU guideline  
 The valves shall be provided with an electrical circuit which ensures the limits of the harmonised standards EN 50081-1 and EN 50082-1 are observed, and hence the requirements of the Electromagnetic Compatibility Guideline (89/336/EEC) satisfied.

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